The University of Chicago

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A PART OF A DISSERTATION SUBMITTED TO THE FACULTY OF THE GRADUATE LIBRARY SCHOOL IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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MAURICE F. TAUBER

CLASSIFICATION OF BOOKS IN COLLEGE AND UNIVERSITY LIBRARIES

HISTORICAL ASPECTS[1]

MAURICE F. TAUBER

THIS paper considers the problem of classifying books in college and university libraries from a historical and practical rather than from a theoretical point of view. The theory of classification has been discussed by such writers as Dewey, Schwartz, Perkins, Fletcher, Hanson, Martel, Richardson, Sayers, Brown, Bliss, Kelley, Lynn, and others and need not be re-examined here.[2] In this paper some assumptions and opinions that have been stated concerning the functions and results of classification in college and university libraries as distinct from other types of libraries are summarized. Various influences in policies of classification that have been present in a few typical academic libraries are indicated.

An examination of library literature will show clearly that the classification of books has been one of the most widely discussed topics of library organization.[3] It has often been the leading theme of library conferences. One had only to criticize an accepted classification, such as the Dewey Decimal system, to advance a new method of arrangement, or to suggest eliminating classification entirely in libraries to provoke entirely opposite opinions. Classification, it appears, has been a boiling-pot of controversy, despite the fact that, except for Kelley's investigations, little is known in a systematic way of its potential or actual usefulness either to the casual reader or to the research worker.

While a strong trend toward the analysis of the reader and of the

[1] This is the first of two articles which comprise the essential portion of a dissertation, "Reclassification and recataloging in college and university libraries" (unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1941). The second paper will discuss in detail the reasons for reclassification in academic libraries and indicate the results of an investigation of faculty attitudes toward classification.

[2] Grace O. Kelley, *The classification of books* (New York: Wilson, 1937), pp. 131–52; also E. C. Richardson, *Classification: theoretical and practical* (New York: Wilson, 1930), pp. 159–88.

[3] Kelley, *op. cit.*, chap. iii.

social implications of the library has not eliminated interest in classification and cataloging, there is evidence in the quantity of literature that such interest has decreased appreciably. Moreover, a large portion of the recent literature has emphasized in a general way the relations of the user to the catalog and classification system. Even in the analysis of readers, classification is given new purposes as an aid in describing publications. Waples has called attention to the important distinction that should be made between the librarian's grouping of a collection of materials for the reader's convenience and other classifications of publications for the purposes of finding "meaningful differences."[4]

However, in spite of the constant discussion of the purposes of classification, librarians have come to definite decisions in the matter of the acceptance of certain systems. While public librarians more or less have become reconciled to the Dewey classification, college and university librarians, in many cases, have not. The revival of the practice of permitting free access to the shelves has focused the attention of many librarians upon the inadequacies of systematic outlines which were prepared before the days of the Dewey Decimal or of other systematic classifications. Freedom in the use of books has also accompanied the development of reading and survey courses, orientation courses, honors courses, divisional and recreational reading-rooms, and other methods or devices of promoting reading.[5] Increased enrolments in graduate schools are directly associated with the increased use of books when immediate access to the shelves is permitted in college and university libraries. For example, reclassification at Iowa State College, at Ames, was found to be desirable largely because of the needs of a rapidly growing body of graduate students using books directly in the stacks.[6] Therefore, despite Kelley's findings that only about one-third of the material on a subject is likely to be assembled by a classification (Dewey Decimal or the Library of Congress),[7] library

[4] Douglas Waples, *People and print: social aspects of reading in the depression* (Chicago: University of Chicago Press, 1936), pp. 32–34. For an example of application see Jeannette Foster, "An experiment in classifying fiction based on characteristics of readers" (unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1935).

[5] On the other hand, the new plan of St. John's College places emphasis on the intensive study of a hundred or more "classics."

[6] Letter to the writer from Mr. Charles H. Brown, librarian, June 12, 1939.

[7] *Op. cit.*, pp. 123–24.

administrators have spent a great deal of thought, time, and effort upon the subject of systematic arrangement of books. It is a rare college or university library, indeed, in which no book classification exists at all, especially if free access to the shelves is permitted.

This fact, namely, that classifications are widespread phenomena in libraries, may be used as a basis for assuming that they possess some sort of value. For the present purpose we are concerned with the question: What value, if any, does a classification have for a college or a university library, as distinct from other types of libraries? Although Ansteinsson admitted that classification has been a perennial subject for controversy, that the loudest critics of the limitations of classification have been members of college and university faculties, and that systems of arrangement tend to become static, he also reminded us that classifiers themselves have been among the first to recognize the deficiencies of the instruments with which they have been working.[8] Faculty members who have urged the establishment of an adjustable system are opposed to those who propose a permanent classification. It may be said that the first group has the sympathy, at least, of some librarians; the second group asks for a state of affairs that is not compatible with the history of the situation. Sayers, reviewing the history of classification from the times of Porphyry and Callimachus to the present day, emphasized the fluid nature of ideas in relation to systematic arrangement of books. Lines of knowledge are not permanently settled matters, and "the whole of our so-called empirical knowledge, from the propositions of Euclid to the atomic structure of the universe, is built upon a series of assumptions incapable of demonstration and liable to disproof."[9]

Thus the librarian must forever reconcile a situation in which classifications for books tend to become static with a situation in which the whole field of knowledge itself, and the relationships of branches of knowledge with one another, change with the years. These changes naturally have some effect upon the relationships of books to one another through the factor of content. There may be a new emphasis on a certain subject, a re-emphasis or a realignment of old data, rather than much actual change in the sum total of knowledge. Yet such shifts of

[8] John Ansteinsson, "Dilemmas of classification," *Library quarterly*, IV (1934), 136–47.

[9] W. C. Berwick Sayers, "The Dewey Decimal classification after thirty years," *Library association record*, XII (1910), 316; see also John Thornton, "Library classification," *Library journal*, LXI (1936), 42.

emphasis may well result in different approaches by scholars and research workers to the growing mass of library materials. Reference may be made to the influences upon the relationships of subjects (as represented in the contents of books) of swiftly moving historico-politico-geographical changes.[10] Must library classifications be revised to absorb these changes? Like many controversial problems in librarianship, this one has resolved itself into a compromise in most college and university libraries.

If Ansteinsson's practical manifestation of classification is examined, it is found to be "essentially a practical expedient to master a multitude of details."[11] Further, a purpose of classification in libraries is to arrange things in order so that they may be found when needed, and this is done by grouping like things and separating those that are different. The separation of different groups, however, does not solve the problem. "A definite sequence of groups is always necessary, and a proper correlation of them must be made—establishing a natural program from one group to the next with the contents most like or most related to the first"[12] and so on through the whole series of books to be arranged.

It is not necessary to record a series of definitions of the classfication of books in libraries or explanations for it. They have been multiplied by the number of writers who have taken an interest in the subject. The works of Cutter, Martel, Mann, Richardson, Dewey, Bliss, Sayers, Brown, Kelley, Lynn, and others reveal this fact. Other librarians, such as Herbert Putnam, while not specialists in classification, have recorded their opinions regarding the importance of a systematic arrangement of scholarly book collections. There also have been many librarians who have taken the point of view that classification, because of the inherent limitation of linearity in arranging books on shelves, has had no real value since it did not gather in one place all the material on a subject. To these individuals, classification is relatively futile and a waste of time and labor.

Martel recognized the limitations of classifications,[13] although not in a statistical sense, long before Kelley made her investigations. He

[10] See Fremont Rider, "Alternatives for the present dictionary card catalog," in W. M. Randall (ed.), *The acquisition and cataloging of books* (Chicago: University of Chicago Press, 1940), pp. 151–52; also John L. Lund and Mortimer Taube, "Period classification," *Library quarterly*, VII (1937), 373–94.

[11] *Op. cit.*, p. 137. [12] *Ibid.*

[13] Charles Martel, "Classification," *Library journal*, XXXVI (1911), 410.

believed, however, that classification in the long run was an economy and an aid to readers and research workers. Despite the fact that more extensive or supplementary guidance in revealing the contents of a library collection on the subjects of "beavers" or "cormorants" might be supplied through subject card catalogs and periodical indexes, other writers, such as Richardson,[14] Mann,[15] Sayers,[16] and Kelley[17] herself have given expression to the view that, while classification is no panacea for all library ills, it does have value as a practical detail of library administration to bring the books and the users together effectively.

A consideration of the history of classifications in college and university libraries will reveal the influence that certain individuals have exerted upon the development of the several factors involved in a policy of book arrangement. These individuals may be arbitrarily divided into five groups: (1) librarians who were articulate in journals and at library conferences on the problems of classification in college and university libraries; (2) devisers—who were most often librarians —of special systems for specific institutions; (3) classifiers and catalogers; (4) faculty members; and (5) educational officers and surveyors of libraries. A study of the recorded opinions of a few representatives from each group or the activities of certain libraries should serve to illustrate the several lines of relationship between various individuals and classification systems.

ARTICULATE LIBRARIANS

There is evidence that head librarians have had a profound influence upon the classifications adopted by certain libraries.[18] This is not surprising. College and university librarians have paid considerable attention to problems of classification ever since the collections of library materials began to increase rapidly in size. At first, the question of fixed and relative location absorbed the attention of

[14] E. C. Richardson, "Classification for college libraries," *Public libraries*, IV (1899), 365; also *Classification: theoretical and practical*, pp. 153–58.

[15] Margaret Mann, *Introduction to the cataloging and classification of books* (Chicago: American Library Association, 1930), *passim*.

[16] W. C. Berwick Sayers, *Introduction to library classification* (5th ed.; London: Grafton, 1939), chap. i; see also his *A manual of classification for librarians and bibliographers* (London: Grafton, 1926), chap. i.

[17] *Op. cit.*, chap. vii, pp. 126–29.

[18] Horace Kephart, "Classification," in Melvil Dewey (ed.), *Papers prepared for the A.L.A. at its annual meeting held at the Columbian Exposition* (Washington: Government Printing Office, 1896), pp. 861–97.

librarians. At a later period the question of broad versus close classification gained importance as a topic of discussion in journals and at conferences. The evolution of these problems in this order indicates that classifications, like subject catalogs, become significant instruments when the size of the collections grows. Interpretation of the contents of the collections becomes essential, if the use of the materials is to be facilitated.

The idea that the classification of books in college and university libraries should differ from that in public or other types of libraries is not particularly new. Otis H. Robinson, librarian of the University of Rochester, made such a suggestion in 1876, when he recommended that a classification for a college book collection be built around the divisions or departments of instruction.[19]

With the formulation of the Dewey Decimal classification in 1876 and the Cutter Expansive classification three years later, college and university librarians began to abandon local classifications and adopt one or the other of these systems.[20] Many librarians believed, however, that neither of these systems was satisfactory for the purposes of an academic library. In 1898 William C. Lane, librarian of Harvard University, surmised that few librarians had the courage to introduce any other classification, despite the faults of both Dewey and Cutter. Lane repeated the recommendation of Robinson and others that a classification for a college library be devised in relation to the curricular divisions of the institutions.[21] The Harvard librarian himself had re-

[19] "College library administration," in United States Bureau of Education, *Public libraries of the United States* (Washington: Government Printing Office, 1876), p. 509.

[20] Kephart, *op. cit.*, p. 890: "Of the printed schemes that have appeared within the past seventeen years, the Dewey system, which is the oldest, is used wholly or partly in one-third of the libraries (127) on our list. Mr. Cutter's Expansive system (not yet finished) is rapidly growing in favor. The others are little used." George T. Little, librarian of Bowdoin college, writing in the same volume, observed that, "while Harvard, Cornell and Columbia had adopted special classifications, most of the colleges that had been led to reclassify their libraries during the past fifteen years have adopted some one of the fully elaborated and published schemes of classification . . . . and have not attempted to construct a new scheme that should avoid the defects of the former and better answer local requirements" (p. 923).

[21] "Classification for college libraries," *Library journal*, XXIII (1898), Conf. No. 177–78. W. I. Fletcher, commenting upon Lane's remarks, said: "Keenly as I appreciate the Dewey classification and the Expansive classification, I have been led to conclude from the results of my own attempt to put our library in as good shape as possible, that anyone who wants to arrange a library for college work must, if he attempts to use either of these classifications, use it with a great deal of freedom" (*ibid.*). Georg Schneider presented an opposite viewpoint on the question of arranging book collections according to the curriculum of a college or university (*Theory and history of bibliography*, trans. by Ralph R. Shaw [New York: Columbia University Press, 1934], p. 191).

jected both the Dewey and the Cutter Expansive classifications and adopted a special system.[22]

The following year, 1899, Richardson noted that the college library, if it were to be an effective force at all, should become integrated in the educational program of the academic institution with which it was connected. This, indeed, sounds very much like the aim stated by college librarians today. Specifically, Richardson considered the library as a laboratory of the college; and, "looked at in that light, it must consider the arrangement of books on its shelves as one of its most important problems. A classification especially fitted to meet the needs of college problems is needed by a college library and none of the systems devised up to this time have been made with that end in view."[23] Richardson, of course, like other critics of established classifications, assumed that the arrangement of books had educational value in suggestiveness and expression of relationships. But Kelley found that "the greatest value to the user of a systematic arrangement of books lies in his being able to locate groups of books on specific and concrete subjects readily, rather than in his reliance upon the relationships expressed."[24]

Olive Jones, recalling the emphasis that librarians have placed upon classification since 1876, supported Richardson's suggestion for a system designed specifically for college libraries. Further, Jones complained of the neglect in discussing "the desirability, indeed the necessity, of different kinds of libraries arranging their books according to their special needs."[25] Neither Richardson nor Jones explained just what the special needs of college and university libraries were, except to observe that the academic library differed from the public library in its clientele. It also was assumed that college and university libraries of approximately the same size did not differ much in the character of their collections, and all could use the same classification to advantage if it were specifically devised for an academic library. This assumption was perhaps true within certain subject fields.[26]

[22] J. C. M. Hanson, "Library of Congress classification for college libraries," *Library journal*, XLVI (1921), 152.

[23] "Classification for college libraries," pp. 264–67. [24] *Op. cit.*, p. 72.

[25] Olive Jones, "Classification for college libraries," *Library journal*, XXIV (1899), Conf. Nos. 36–41.

[26] There is some evidence for describing typical contents of college libraries of today (see William M. Randall, *The college library* [Chicago: American Library Association and the University of Chicago Press, 1932], pp. 90–92). In this study of libraries of

All librarians, of course, did not share with Robinson, Lane, Richardson, and Jones the view that a classification could be or needed to be devised particularly for a college or university library. Recognition of the practical values of classification did not prevent John Christopher Schwab, a professor of political economy who became librarian of Yale, from indicating the limitations of systematic book arrangements.[27] Like other librarians of his time, he assumed that "the advanced student and investigator expects to be guided in his search for materials by the classification of the materials on the shelves." And while "each individual would like to have all the material he uses for his particular purpose shelved together as is the case in his private library," this becomes impossible in a fairly large college or university library, where individuals with varied interests approach a given subject with different points of view. Schwab was particularly concerned about the approach of the scientist as contrasted to the approach of the humanist. It is to be observed that, although he admitted that the individuals who made up an academic community had homogeneous interests, he noted that they sought and used materials in different ways. Thus, the librarian should endeavor to provide a classification that meets, as far as it is possible, these varied points of view. He should not, except on rare occasions when administrative convenience demands it,[28] project his personal bias into the system used in the library. Just as Kephart and Little stated earlier, Schwab emphasized the need for impersonality and objectivity in the construction and application of a systematic classification.

These examples of librarian's interests in classification may be multiplied several fold. There seems to be little doubt that, by the close

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liberal arts colleges Randall found that in psychology, education, and sociology "the average holdings of the colleges are above the 22 per cent of the books listed in Charles B. Shaw's *A list of books for college libraries*." History, religion, English, and zoölogy rank next in order, each one 20 per cent or better. The range of averages for the other subjects was 6.91 per cent for German to 19.86 for philosophy. These findings are cited to suggest that the "subjects in which the accepted literature for undergraduate use is comparatively standardized, and in which collateral reading is heavy" are generally held by most college libraries included in Randall's study. "Where collateral reading is light, the corpus of literature large, and the history of publication long," the libraries and the list disagree most widely. The amount and type of graduate work carried on in large colleges and universities usually will have definite effects upon the size and quality of the book collections of the libraries.

[27] *Report of the librarian, July 1, 1908, to June 30, 1909* (New Haven: Yale University, 1909), p. 11.

[28] *Ibid.*

of the nineteenth century, college and university librarians were in a quandary in the matter of selecting a classification. They certainly had more opportunity—and doubtless more need—to select a classification than the librarians of Yale University and of William and Mary College did in the eighteenth century. Shores has described the classifying of books in the two institutions.[29] President Clap of Yale was responsible for the publication of the first library catalog of the university collection, printed in 1743. In an appendix to the catalog there is a classification, which serves as an index to the volume. It does not require too much scrutiny to discover the theological thread which runs through the classification.[30] Of the William and Mary College book collection, Shores found that it remained unclassified, or at least not classified by subject, until 1779. "In that year the faculty 'Ordered, that the Library be arranged according to the different Branches of Literature.' "[31]

Since this paper, however, is not intended to be a complete history of the classification of books in American college and university libraries—a study which might well be made—but rather an attempt to refer to certain signposts along the way, it may be more to the point to consider the situation in more modern times.

In the search for a perfect classification, college and university librarians were anxious to secure one which would permit of intercalation of large numbers of titles without constant modification of the schedules, as well as one which would fulfil all other requirements of a "good" system.[32] One is inclined to believe that, except for such men as Martel, Cutter, Fletcher, Richardson, and a few others, little thought was expended by librarians upon the theory of classification. Thus the mistaken idea that Dewey's notation was his classification was widely prevalent. Kelley notes that some of the canons of classification developed at the time "always seemed vague and unnecessarily theoretical. It is, perhaps, not surprising that in actual practice little attention was paid to them."[33]

[29] Louis Shores, *Origins of the American college library* (Nashville: George Peabody College, 1934), pp. 174–79.

[30] *Ibid.*, pp. 175–79. [31] *Ibid.*, pp. 174–75.

[32] Richardson lists five criteria of a practical or satisfactory book classification: (1) it follows as nearly as possible the order of things; (2) it carries out the schedules in minute detail; (3) it provides the system with a notation that will allow for indefinite subdivision; (4) it provides the sytem with a detailed and specific index; and (5) it observes that the system is generally used (see his *Classification: theoretical and practical*, p. 41).

[33] *Op. cit.*, p. 57.

DEVISERS OF CLASSIFICATIONS FOR PARTICULAR LIBRARIES

The construction of classifications for particular academic libraries may now be discussed. Perhaps a few examples will serve to indicate in a concrete way the activities of some librarians who employed classifications of their own making in their quest for a satisfactory arrangement. Four of the systems which were adapted to university collections are worth brief mention. These are the Edmands classification, used at Yale University; the Harris classification, used at Cornell University; the Rowell classification, used at the University of California; and the Richardson classification, used at Princeton University. All were developed after the appearance of the Dewey and the Cutter systems and, with the exception of the Richardson classification, some years before the appearance of any of the Library of Congress schedules. Except for the Edmands classification, which was devised specifically for the Mercantile Library of Philadelphia and later adapted to the Yale collections, these systems represented the efforts of incumbent librarians to compile a classification which was thought to be better suited to the needs of a specific academic library than either the Dewey or the Cutter schedules were. It should not be overlooked, however, that Dewey had begun his system for use with the Amherst collection and that it was adopted by Columbia College Library and numerous other academic libraries.

What were the characteristics of these local classifications? As has been noted, they were not the first systems to be devised for particular academic institutions. The summaries of Edwards in 1859,[34] Kephart in 1893,[35] and Richardson in 1930[36] contain references to the various classifications that were created and used in different libraries from time to time.

The classification devised by Edmands in 1883,[37] although it was much simpler, was modeled after the Cutter system, which had been prepared four years earlier. Edmands, however, used capital letters

[34] Edward Edwards, *Memoirs of libraries* (London: Trübner, 1859), II, 759–831.

[35] *Op. cit.*

[36] *Classification: theoretical and practical*, Appen. I.

[37] John Edmands, *Explanation of the new system of classification, devised for the Mercantile Library of Philadelphia* (Philadelphia, 1883). See also Anna M. Monrad, "Historical notes on the catalogues and classifications of the Yale University Library," in *Papers in honor of Andrew Keogh* (New Haven: Privately printed, 1938), p. 276. Addison Van Name, librarian of Yale at the time, used, in addition to features from Edmands' system, certain aspects of the following classifications: W. T. Harris (1887); Hamburg Stadtbibliothek (1885); Cutter (1887); Fumagalli (1887); and the Halle University system (1888) (Monrad, *op. cit.*, p. 283).

for the twenty-three main classes and lower-case letters for the subordinate classes. Yale University Library, adapting Edmands' system, used the notation but not the plan of alphabetical book numbers. Monrad pointed out later that a chronological arrangement of the books within the classes was preferred for most of the material in a scholarly library. However, no definite plan for the expansion of book numbers was made, and "this failure to allow for expansion is the chief ground for criticism of the schedules at Yale."[38] Rather than create another theoretical arrangement of knowledge, Edmands had constructed his classification with the intention of making it fit a specific collection of books. Moreover, the system was compiled for a small collection and aimed "at the needs in libraries of the people" generally, rather than at those of scholars and research workers. It is not surprising, therefore, that Addison Van Name, the librarian, was obliged to incorporate features from a half-dozen classifications in order to arrange with reasonable logic the growing Yale collections. The evolved "system," however, was not satisfactory to Van Name's successors, and in 1908–9 Andrew Keogh, assistant librarian to John Christopher Schwab, was given authority to reorganize the classification as far as possible along the lines of the system of the Library of Congress.[39]

The cycle that the Yale classifications passed through may be considered a pattern for some of the larger and older university libraries of America. The George W. Harris classification for Cornell University, which was begun in 1870 but which did not emerge publicly until 1891, attempted to transfer the British Museum Expansive system of press numbers (originally devised in 1836) by taking the numbers from 100 to 9999 for the presses of the stacks and leaving gaps between the numbers actually used. Harris, the librarian, believed the system combined the advantages of fixed and relative location. Later developments, however, indicated that it included too many disadvantages as well. Constant rearrangement was necessary, although this practice was not particularly disturbing to Harris, who, like many other librarians of his era, considered classifications as changeable instruments, to be revised whenever new developments made change necessary.[40]

Dissatisfaction with both the Dewey and the Cutter classifications

[38] Monrad, *op. cit.*, p. 276. [39] *Ibid.*, pp. 278–79.

[40] George W. Harris, "The classification at Cornell University," *Library journal*, XX (1895), 214.

led Joseph C. Rowell, librarian of the University of California, to construct his own system, which was published in 1894. Cutter, reviewing the classification, referred to the general arrangement of classes as a "cross between the Decimal and the Expansive classifications."[41] Although Rowell adopted many features of the Expansive classification, he modified them in an original manner. The blending of theory and practice in the Rowell classification led Richardson to describe it as "one of the best combinations of the scientific and practical in medium expansion among the modern systems."[42]

The Rowell classification was specifically designed to be applied to a university collection of about 60,000 volumes. Rowell noted that "in its collocation of subjects it is believed to more nearly conform to courses of instruction than do other schemes" in print.[43] Future expansion was provided through the addition of lower-case letters to the class marks, thus effecting a more minute differentiation of topics. By 1915 Rowell found it expedient to issue an expanded edition of his system even though reclassification was already under way at the time.[44] In the Preface to the new work, he stated that amplification was warranted by the gradual growth to over 300,000 volumes. But since provisions had been made for probable expansions "no changes, no erasures, were required on the books, catalogues or other records." The scheme of lower-case letters for subordinating topics in their logical places proved to be "a simple, rapid, cheap process. For example, new subjects like Aeroplanes, Photoplays, War of 1914—— easily found their respective places."[45]

Despite its several good points, the Rowell system did not persist any longer than scores of other classifications which preceded it. Perhaps its chief difficulty as far as librarians were concerned lay in its notation, which, as Richardson early pointed out, was the rather discredited integral system.[46]

The urge to secure a classification which met the needs of a rapidly growing scholarly collection was responsible for the development of the Princeton University Library classification. Richardson, after

[41] C. A. Cutter, [Review of] "Rowell classification," *Library journal*, XX (1895), 214.

[42] *Classification: theoretical and practical*, p. 132.

[43] Joseph C. Rowell, *Classification of books in the library* (Berkeley: University of California Press, 1894), Preface.

[44] *Ibid.* (2d, partially enl. ed.; Berkeley: University of California Press, 1915), Preface.

[45] *Ibid.*

[46] *Classification: theoretical and practical*, p. 132.

working out an outline of a theoretical system, used it as a philosophical base for a practical classification.[47] The notation of the system is decimal, although a four-figure base is used. On the basis of careful observation of a number of systems, Richardson concluded that 10,000 or more subdivisions were necessary. Mnemonic features, as in Dewey, are present in this system, though not to the same degree. While Richardson prepared this classification especially for Princeton, he suggested that libraries of a similar character might find it practical.[48]

With the publication of the Library of Congress schedules at the close of the nineteenth century, interest in classification was renewed. The controversy that had been carried on by supporters of the Dewey Decimal classification and the adherents of the Cutter Expansive classification[49] now developed into one between the respective supporters of the Dewey and the Library of Congress systems. The conflict grew slowly, however, and it was not until the 1920's, when the majority of the Library of Congress schedules were in print, that it emerged with considerable force.[50] Since the seventh expansion of Cutter's system had not been completed, it was to be expected that interest in the Expansive classification should wane. This was all the more true because the Library of Congress schedules are based upon Cutter's system to a large degree.

CATALOGERS AND CLASSIFIERS

No statement of the history of classification and cataloging in academic libraries would be complete without reference to the influence of individual classifiers and catalogers. This influence in many cases

[47] *Ibid.*

[48] E. C. Richardson, *Princeton University Library classification* (printed as MS, uncorrected proof edition; Yardley, Pa.: Cook, 1929).

[49] Melvil Dewey, "On the suitability of the Dewey scheme for college libraries," *Library journal*, XXIV (1899), Conf. No. 154. Dewey claimed no personal interest in his classification. He declared that criticisms of it were based on misapprehensions.

[50] J. C. M. Hanson, "Library of Congress scheme in college libraries," *Library journal*, XLVI (1921), 151–54; J. R. Gulledge, "L.C. vs. D.C. for college libraries," *Library journal*, XLIX (1924), 1026–27 (contains summary of arguments pro and con); Dorcas Fellows, "Library of Congress classification versus the Decimal classification," *Library journal*, L (1925), 291–95; Harry Clemons, "D.C. vs. L.C.," *Libraries*, XXXV (1930), 1–4. As early as 1912, E. W. Hulme, the English librarian, called attention to the merits of the Library of Congress classification over other classifications for large scholarly collections (see his "The principles of classification," *Library Association record*, XIV [1912], 43–44).

is not so tangible a factor as direct statements in journals or at conferences or as the compilation of classifications by librarians. Yet in certain instances the domination by individuals of the policy of a library in regard to classification and cataloging has been outstanding. In these particular cases, probably no other procedure in library practice, except perhaps that of a book selector, leaves a more definite record than the work of a classifier or cataloger.

A single example may be cited. In 1933 Mount Holyoke College paid tribute to Miss Bertha H. Gault, who had been classifier and cataloger of the library since 1905. In the latter year she was engaged to reclassify the collection from a local system to the Expansive classification of Cutter. She remained until her retirement in 1933, having classified the major portion of 125,516 volumes during her active period.[51] There can be no doubt that the impress of a classifier upon the actual application of a classification to a book collection can be extremely important.

FACULTY MEMBERS

Another group of individuals who have played prominent roles in both the selection and the application of classifications in academic libraries have been members of the faculties. Too frequently, according to the reports of librarians, the faculties have created considerable confusion as a result of their efforts to control the arrangement of books in their special fields. On the other hand, there is evidence that consultation with the faculty in an institution has resulted in decisions which in the long run have proved best from the point of view of the users of books.

The examination of annual reports of college and university librarians in some twenty institutions has made it possible to summarize the influences of faculty members relating to classification and reclassification as follows:

A. Classification
   1. Made suggestions regarding the arrangement of classes (general collection, seminar, and laboratory collections)
   2. Took an active part in the compilation of special classifications
   3. Criticized special classifications made by librarians before they were applied to collections
   4. Conferred with librarians regarding the placement of materials within certain classes

[51] Mount Holyoke College, "Report of the Librarian of Mount Holyoke College, 1932–33," *Reports of the officers*, pp. 52–53.

5. Made suggestions regarding the assignment of class numbers to difficult titles
6. Demanded certain locations for titles they had ordered for the library
7. Actually classified certain classes of books

B. Reclassification

8. Served on special committee to study available classifications with the purpose of selecting one for the library
9. Recommended a new classification for the whole library collection
10. Recommended a new classification for a special collection
11. Recommended a new classification for a departmental library
12. Participated in the final decision to reclassify the whole or part of collection

Students of the history of the organization of institutions of higher education in the United States know of the close relation of the faculty to the library that has existed since the early days of colleges and universities. Before the days of library training, faculty members were usually the librarians.[52] In some institutions this is still true. Such a historical situation led to a close scrutiny of library activities on the part of the faculty. This "co-operation" was later delegated to a library committee, the members of which often directed the entire library policy. While present ideal library administration demands that faculty library committees serve only in advisory capacities, it is not surprising that in these earlier times professors dictated the adoption of certain classifications.

Citation of a few examples may serve to make explicit the nature of faculty-library relationships on the matter of classification. In 1893, at the University of Wisconsin, after a careful consideration of classification systems in existence at the time, it was decided to adopt the Expansive classification. The faculty were often permitted to pass on an expanded outline of a class. The results were not always happy. Lamb cites the case of the botany professor who had helped in the organization of his special subject and then later severely criticized it, having forgotten his association with it.[53]

Individual faculty members were consulted during the adoption of the Cutter Expansive classification at Mount Holyoke College in 1905. Moreover, in order to integrate the arrangement of books along the lines of the curriculum, faculty members presented to the librarian

[52] J. D. Russell, *Organization and administration of colleges and universities* (3d ed.; Chicago: Distributed by the University of Chicago Bookstore, 1939), p. 67.

[53] Eliza Lamb, "Expansive classification in use," *Library quarterly*, IV (1934), 265.

outlines of their courses of instruction.[54] No evidence is presented that outlines were useful in determining policies of classification. Constant changes of the classification, however, have made consistent placement of materials difficult at the present time.[55]

At the University of Chicago, where faculty relations to the library were exceptionally close during the days of President Burton, it was probably to be expected that a special committee composed of professors would be assigned to study the available classifications when a decision to reclassify the scattered collections was reached in 1910. The recommendation to adopt the Library of Congress classification, even though only a few of the schedules had appeared, was suggested after a thorough study of the system by the committee.[56]

Writing of the practices of the University of California at Los Angeles in 1911, Goodwin observed that "in the whole history of library processes, classification presents more reasonable and indeed more fruitful ground for difference of opinion between the librarian and the reader than any other."[57] Goodwin further remarked that the practice of the professor of going directly to the stacks rather than the card catalog resulted in much trouble. Because of the assumed dependence of faculty members upon classification, Goodwin maintained that it was an important part of the library and deserved special consideration. Consultation with the faculty offered an opportunity to minimize friction that might arise in the placement of books that overlapped into several subject fields.[58]

The situation of a faculty member actually creating a classification to be applied to a college library book collection is not new.[59] Lowes,

[54] Mount Holyoke College, "Report of the librarian," *Annual report of the president, 1905–6*, p. 32.

[55] Letter to the writer from the librarian, Miss Flora B. Ludington, dated February 15, 1940.

[56] University of Chicago, *President's report, 1910–1911*, pp. 117–18.

[57] J. E. Goodwin, "Necessary red tape: college library classification," *Bulletin of the American Library Association*, V (1911), 253–58.

[58] *Ibid.*, p. 255.

[59] In 1856, twenty years before Dewey devised his classification at Amherst, Dr. W. D. Wilson, a professor of logic and ethics, developed a system of classification for the Hobart Free College, Geneva, N.Y. It was part of the closing chapter of his book, *Treatise on logic*. It consisted of three principal classes: (1) Theoretical sciences; (2) Practical sciences; and (3) Productive arts. The Theoretical sciences were further subdivided into Exact sciences and Pure sciences; the Practical sciences, into Mixed sciences and Ethical sciences; and the Productive arts, into Fine arts and Useful arts (Edwards, *op. cit.*, II, 808–10).

writing of a classification system devised by a professor-librarian at Washington and Jefferson College, remarked that "it was performed with no little skill, nor was the system wholly bad for a library which never grows. . . . . But the mistake of 'fixed location' had been made, with the usual result."[60] At Cornell University, the inadequacies of the Harris classification prompted at least one faculty member to take upon himself the burden of reclassifying by the Library of Congress system the entire group of books on the Spanish language and literature. While reclassification of various other sections of the Cornell collection is desirable, that type of work, owing to a limited staff, has been a "haphazard undertaking."[61] This case of the Spanish professor, though not unique in the history of academic libraries, is outstanding.

The last library to be considered here in the historical faculty-library relationship concerning classification is that of Princeton University. Richardson has described vividly the manipulations of the Princeton classification resulting from the "bright ideas" of professors. From 1900 to 1920 changes were keeping the library staff busy. The principle of consulting departmental preferences was pushed "against common usage, the judgment of the librarian, and even against logic, rhyme or reason."[62] Mathematics was reclassified four times, while Art was shifted around whenever a new professor with a different approach to the subject appeared on the campus.[63]

EDUCATIONAL OFFICERS AND SURVEYORS

Works, in his study of college and university libraries in 1927,[64] and Randall, in his study of college libraries in 1932,[65] found that classification frequently presented difficulties to library administrators. Works concluded that "the clientele of a library that has interests as diverse as those of a student body and faculty is not satisfied with a classification made by a library staff."[66] Data collected by the writer, however, indicate that this conclusion should be modified when a sys-

[60] F. E. Lowes, "Reclassification: a problem and a solution," *Pennsylvania library notes* (October, 1913), pp. 75–77.

[61] Letter to writer from Dr. Otto Kinkeldey, librarian, dated June 16, 1939.

[62] *Classification: theoretical and practical*, p. [vii]. [63] *Ibid.*

[64] George A. Works, *College and university library problems* (Chicago: American Library Association, 1927), pp. 102–4.

[65] *The college library*, pp. 113–14. [66] *Op. cit.*, p. 102.

tematic classification such as that of the Library of Congress is being considered.

Randall, surveying 193 liberal arts colleges, found 163 using the Dewey Decimal classification, "generally without important change." Eighteen of the libraries used the Library of Congress classification, and 4 more were reclassifying at the time of his visits. Five libraries used the Cutter classification, and 3 employed locally devised systems. Randall suggested that, of the existing classifications, that of the Library of Congress was best suited to solve problems raised by size of the collection. Moreover, the Library of Congress system is more flexible and modern than other systems and, in many respects, represents a higher type of scholarship.[67]

In his comments before the Catalogers' and Classifiers' Section of the American Library Association in 1929, David Allan Robertson, president of Goucher College and visitor to scores of college and university libraries, called attention to the difficulties he met in using the Dewey classification and suggested, on the basis of his experience as a student and teacher and observer of library practice in academic institutions, that a uniform system—the Library of Congress classification—be adopted.[68] "It would be a great thing for all institutions of higher education," he wrote, "and especially for the young men and women who are going on to advanced work and research in the graduate schools if the books in all academic libraries were classified by the same system." The reasons for Robertson's statement, which is certainly one of the strongest in its implications for reclassification of college and university libraries generally, are to meet the needs brought about by the transfer of undergraduate students and the movement of graduate students, research workers, and faculty members from institution to institution, as well as to benefit economically from the use of a product of a centralized and responsible agency.

SUMMARY

This brief survey of historical aspects of classification in a group of college and university libraries may give some conception of the various problems involved in attempts of librarians to arrange their collections in a manner which would present the greatest advantages to

[67] *Op. cit.*, pp. 113–14.

[68] "Library of Congress classification as an aid to research," *Proceedings of the Catalog Section, American Library Association, 1929* (Chicago: American Library Association, 1929), p. 69.

the users, as well as maintain reasonable administrative efficiency in the technical processes. Since any appraisal of the future is predicated to a large degree on what has occurred in the past, these historical situations may help to indicate to administrators and classifiers what possibilities and futilities exist in the problem of classification.

Several assumptions have been made by librarians and others regarding the classification of books in academic libraries as distinct from other types of libraries. First, there is the assumption that a classification should be built around the curriculum or departments of instruction in order to facilitate the use of books. This assumption has been put into practice and found wanting. Second, there is the assumption that a classification has educational value. This assumption has not been tested systematically. Third, there is the assumption that a classification assembles all the material on a subject. Kelley has shown the invalidity of this assumption. Finally, there is the assumption that a classification must be flexible and expansible to enable the classifier to handle all new topics and to show new relationships between subjects. The obstacles toward ever having such a classification have been pointed out by several writers.

The study of the history of classification in academic libraries reveals the influences that certain individuals have exerted upon policies of systematic arrangement. These individuals may be divided into five groups: (1) librarians who were articulate in journals and at library conferences; (2) devisers of special schemes for specific libraries; (3) catalogers and classifiers; (4) faculty members; and (5) educational officers and surveyors of libraries. For certain institutions any one of these groups may have been more important than the others. The significant point is that many librarians have not examined carefully the practical results, in objective terms of either use or technical efficiency, that have developed from classifications, and they have been easily swayed by professional opinion in the absence of specific data.

RECLASSIFICATION AND RECATALOGING IN COLLEGE AND UNIVERSITY LIBRARIES REASONS AND EVALUATION[1]

MAURICE F. TAUBER

MANY chief administrators, catalogers, and classifiers have been willing to reclassify and recatalog the collections of their libraries, even though they may be familiar with the confusion that frequently attends such processes. Two questions naturally arise: (1) What is behind the apparent readiness of library administrators to undertake the additional burdens of reorganization and activity which are introduced by reclassification and recataloging? (2) What results are actually attained by reorganization of classifications and catalogs?

One might answer the first question simply. It is evident from the literature that many college and university librarians were building up an attitude of dissatisfaction toward all classifications for collections of scholarly books until the Library of Congress system appeared. The subsequent adoption by a group of college and university librarians of the classification schedules of the national library, therefore, was putting into practice the belief of some librarians that reclassification and recataloging of their collections were positive means of improving their service to students and faculty members. The librarian of Catholic University in his report of 1938 summarized the typical point of view toward the values derived from systematic classification and cataloging. "Our needs are many," he wrote, "but the need for recataloging and reclassifying the present stock [some 272,000 volumes] still remains the most pressing,

[1] This is the second of two articles which comprise the essential portion of a dissertation, "Reclassification and recataloging in college and university libraries" (unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1941). The first paper, discussing historical aspects, appeared in the *Library quarterly*, XII (1942), 706–24.

both from the point of view of giving service with our present holdings and practicing economies for the future."[2]

Although Kelley, in discussing the subject approach to books, noted that librarians as a rule have assumed that "a systematic arrangement of books by subject-matter, even though admittedly poor and out of date, is to be clung to and preferred to any other kind of arrangement,"[3] there is evidence in the reports of librarians that reconciliation to a "poor and out of date" classification is based largely on financial considerations. However, some other librarians, who would consider reclassification as a progressive activity, finding that their libraries have "outmoded"[4] classifications or that their cataloging methods are so inconsistent as to interfere with service to the users, have concluded that they must change in order to permit functioning in line with the educational aims of the libraries. The economies which are assumed to accrue from the use of a centralized system of classification and cataloging are not to be underestimated as a reason for change. Despite expected and usually realized advantages from reclassification and recataloging, it is to be recognized that these processes are not cure-alls for a library's ills—though they may release both time and funds for the correction of other faults of administration. The future plans of the library and of the institution with which the library is associated, therefore, have a direct relationship to this matter of technical reorganization.

I. REASONS FOR RECLASSIFICATION

Usually, then, the librarian proceeds to introduce reclassification and recataloging because he assumes they will increase

[2] Catholic University, Washington, D.C., *Report of the rector, 1937–38*, p. 75.

[3] Grace O. Kelley, *The classification of books* (New York: Wilson, 1937), p. 61.

[4] "Outmoded" here is used in the sense of being inadequate in meeting the needs of a rapidly growing collection. In other words, the classification is deficient in some property, such as completeness, inclusiveness, distinctive terms, etc. It is, of course, possible to argue that sections of the L.C. classification are also outmoded. One needs to refer only to certain geographical sections of Class H to observe how wars, for example, disturb arrangements of books. Few libraries have attempted to keep abreast of such changes.

the educational services of the library and/or reduce the costs of technical processes. To clarify further the question of why libraries are reclassified, the specific motives or reasons for reclassification as offered by librarians in a group of sixty college and university libraries in the United States and Canada[5] which have changed or are changing to the L.C. classification may be analyzed. These reasons for reclassification appear to divide conveniently into three categories: (1) those which concern the classification that is being discarded; (2) those which have developed either out of the observed effects of the classification upon the users or out of the expressed attitudes of the users themselves; and (3) those which are associated with the administration of the technical processes.

It will be noted that these categories are not discrete; they overlap considerably and are all related. In addition, the history and growth of the individual library and of its collections, as well as the development of the institution of which the library is a part, should be considered in relation to the reasons that have been advanced. If it is kept in mind, therefore, that the reasons for reclassification are treated as separate concepts only as a matter of convenience, the more important of them may be discussed in descending order of frequency of mention by the librarians included in the study.[6]

[5] For a list of these libraries, see Tauber, "Reclassification and recataloging in college and university libraries" (unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1941), pp. 351–53. The data treated in this paper were secured primarily by a check-list questionnaire. An analysis of available annual and special reports and visits to a representative group of libraries served to supplement the data obtained through the check lists. Copies of the check list may be obtained by addressing the writer, University of Chicago Libraries, Chicago, Illinois.

[6] In addition to the reasons recorded, there are several others which a number of librarians regarded as "trivial." The fundamental consideration in this respect is that while a reason may be trivial from the point of view of theory, actually it may be a deciding factor in the mind of the librarian. Three of these reasons, for example, were as follows: (1) reclassification was instituted primarily because a member of the staff, usually the librarian or head cataloger, came from a library which had used the L.C. system; (2) reclassification seemed wise because other libraries were adopting the L.C. schedules; and (3) reclassification was introduced because discussions in journals and conferences praised the L.C. system as a means of arranging scholarly book collections. It is apparent that whether a reason is trivial or not depends upon whether a theorist or a practicing librarian is defining it.

REASONS RELATED TO CLASSIFICATIONS IN USE

The distribution of the discarded classifications for the sixty libraries represented in the study was as follows: Dewey, 37; local scheme, 5; modified Dewey, 3; Cornell (Harris), 3; Rowell, 2; Cutter, 2 (1 modified); and the following 1 each—Harvard, Poole, Richardson, British Museum, anonymous continental, fixed numbers, accession numbers, and rough subject arrangement. The sixty librarians as a group advanced fifteen reasons for discarding these classifications and replacing them with the L.C. system. These reasons may be listed as follows:

1. Classes were too broad
2. Classes were lacking (e.g., psychology, physics, history, etc.)
3. Classification was not as well suited as the L.C. system for meeting changes in educational policy (e.g., open access to all students)
4. Not modern in content or terminology
5. Not revised frequently enough
6. Not revised fully enough
7. Classes were poorly balanced
8. Classes were not in logical order
9. Local conditions prevented expansion of old classification
10. Special class needed reorganization
11. Not suited for special collections (science, theology, business)
12. Stressed country instead of subject groupings
13. Collection only partially classified by subject groupings
14. Special departments (e.g., medicine) preferred L.C. schedules
15. Had used abridged form of a classification which could not be expanded

It may be noted that a number of these reasons are the opposites of accepted attributes of a satisfactory system as described by classification theorists. Practically, of course, one might define a satisfactory classification as one which serves the purposes of the library using it. For even if a classification were constructed on a correct theoretical basis, experience has demonstrated that because of unavoidable limitations the theory may not be carried out in the practical arrangement of books on the shelves. This will be evident in the discussion of the more important individual reasons.

Classes too broad.—Twenty-eight librarians, fifteen of them in libraries using the Dewey classification, indicated that the classes in the systems in use were too broad. The Richardson classification, while having sufficient classes, apparently was not

detailed enough. Around this point of "broad" versus "close" classification much discussion has occurred among theorists of classification as well as among practicing librarians. There has been no agreement as to where close classification begins and broad classification ends. The various local classifications, devised by librarians, professors of special subjects, and classifiers with a limited knowledge of many subjects, were all criticized as being too broad.

Classes lacking.—Twenty-six librarians found that in the classifications they had been using certain classes were lacking, wholly or in part. In fourteen cases the Dewey classification was the object of criticism. This is not surprising, if only because a large proportion of the libraries had used Dewey. Based upon a theoretical classification of knowledge current at a certain period, the Dewey system, perforce, could not provide places for new ideas or new relationships of ideas without considerable manipulation. This has been true despite the fact that fourteen editions of the Dewey classification have appeared. New subjects are constantly being added to the fund of knowledge, and because the Dewey classification has not made adequate provision for growth in many subjects (such as psychology, education, sociology, and various divisions of the biological and physical sciences), or for showing current relationships between subjects, librarians have considered the classification inadequate for handling large, scholarly collections. If one considers the size of the institutions discarding the Dewey classification because of the absence of classes, there is some cause for reflection concerning the importance of this reason as it stands alone. The large number of libraries of 100,000 or more volumes which are still classed by Dewey indicate that makeshift solutions may be found for the problems which develop because classes are lacking. The Harvard, Richardson, modified Cutter, and rough subject classifications were the only systems for which no librarians advanced the reason "classes lacking."

No provision made for modern thought.—In fifteen libraries using Dewey and in eight others distributed among six of the other classifications it was found that prior to reclassification

constant manipulation, revision, and adjustment were necessary in order to provide suitable places for the intercalation of new subjects included in the many volumes coming into the libraries. Except for the Dewey classification, not one of the systems used was kept up to date by a single responsible agency. The Cutter classification, still in use in a number of large libraries today, has been revised by individual librarians. At the University of Wisconsin Library, for example, it has been found necessary to expand and adapt sections of the Cutter system in order to provide for new subjects. As an illustration, the class F (history) "has required large insertions and expansions to keep abreast of the times, such as full schemes for the European war, and, in some cases, for countries where necessitated by material or use."[7] On the other hand, at George Washington University it was found that repeated manipulation of the Cutter classification was unsatisfactory because of the expense and the questionable results. Libraries using the Dewey schedules have found it desirable to modify the original classification considerably in order to provide for the growth of new subjects or to show new relationships of older subjects. So many changes have been made in some cases that Dewey class numbers on L.C. cards generally cannot be applied.

A conclusion may be drawn from the experiences of the libraries included in the study. The older the classification and the further it departs from standard systems (Dewey, Cutter, or even Rowell and Harris), the greater is the need for additions, alterations, and adaptations to meet the problems raised by increasing numbers of publications in dynamic fields of knowledge. Evidence indicates that the task of changing an antiquated system with any consistency is extremely difficult and is seldom satisfactory to librarians or to some faculty members. Students seldom question the placement of books.

Nonsuitability of classification for scholarly collection.—Seventeen librarians volunteered the reason that the L.C. classification was more suitable for scholarly collections than the systems in use. Fourteen of these were in libraries using Dewey and

[7] Eliza Lamb, "Expansive classification in use," *Library quarterly*, IV (1934), 265.

three in libraries using local classifications. There is some reason to conclude, on the basis of other data collected, that users would substantiate the generalization drawn by librarians that the L.C. system is more adaptable to the collections than were the classifications it supplanted.

Not revised frequently enough.—To some extent, infrequent revision, as well as incomplete revision, is but a reflection of other reasons for discarding a classification. If a system is not detailed enough, has classes lacking, is poorly balanced, and is illogical, it stands to reason that alterations and revisions are but makeshifts. Certainly the Dewey classification has been revised many times; in only three instances has there been a lapse of more than five years between editions.

Further, it should be noted that complete revisions of the L.C. schedules have been infrequent, although current changes are made in the assignment of class numbers. Frequency of revision does not in itself appear to be a serious reason for reclassification. Rather, it seems that basic inadequacies prevent successful corrections and alterations.

System not revised fully enough.—There is a close relation between incomplete revision and infrequent revision as reasons for reclassification. Of the fifteen librarians who advanced these reasons, eleven marked the two together. Full revision, of course, is hardly possible in a classification which does not contain basic provisions for the addition of new subjects. Such classifications as those of Cutter, Richardson, Rowell, and Harris, each the product of a single individual, have thus fallen into disrepute among college and university librarians because of their incomplete character. Although the Dewey classification is revised, difficulties are presented because of the impossibility of intercalating numbers except by lengthening them to a point of cumbersomeness. More important than this, however, is the arduousness of interpolating subjects in places which would be satisfactory to librarians and users alike.

Classes poorly balanced.—"Balance," as the term is used in connection with classification, may be defined as uniform and equal treatment of all classes included in the system. This

means that one subject or class should not be overemphasized by close classification—unless it serves the purpose of the library—while other subjects or classes for which there is available a like amount of materials as represented by book titles are treated broadly. Thus, systems devised a half-century ago gave primary attention to literature and theology, and such fields as technology, agriculture, medicine, and other sciences, as well as the various social sciences, were not well developed—in many cases, not provided for. The Dewey classification, based upon a single individual's conception of the division of knowledge current at a certain period, likewise placed inadequate stress upon such subjects as education, sociology, psychology, physics, chemistry, and other subjects destined to grow extensively and intensively. It is worth noting that the Rowell and Cutter classifications were discarded by librarians not because they were poorly balanced so far as classes were concerned, but because they were not revised frequently or fully enough.

Classes not logical.—Twelve librarians using the Dewey system and one librarian using the Harris classification gave as a reason for reclassification "the illogical arrangement of the classes." Dewey's principle in building his classification was the depiction of the history of man's development in the order of the classes. The order was presumed to result in a logical arrangement of the materials that fell into the nine main classes. Bliss, however, has criticized Dewey's order as practical, arbitrary, and purposive, rather than logical, natural, and scientific. This led Bliss to define logical order as "an attempt to conform fundamentally to the organizations of knowledge established in the scientific and educational consensus."[8] Bliss offers no approach, however, to reconcile the disagreements of scientists and educators.

Thus, the word "logical" refers, first, to the relations between the several classes and, second, to the internal arrangement

[8] Henry E. Bliss, *The organization of knowledge in libraries* (2d ed.; New York: Wilson, 1939), p. 36. Bliss's opinion regarding the value of the L.C. classification is given in chap. xii.

within each class. The various local classifications used prior to the adoption of the L.C. schedules did not usually follow any order which modern theorists would call logical. It is apparent that in libraries having arrangements by accession or fixed numbers, or by rough subjects, no effort was made to insert in them logic, balance, or any other property associated with systematic classification.

Moreover, the examination of the actual placement of materials in the stacks of libraries reveals that logical order, in so far as classes are concerned, does not hold in practice. Except in libraries in which the collections are small and occupy a single stack level, there is no attempt to keep the books in the order of the classes, as, for example, A–B–C to Z in the L.C. system or 000–999 in the Dewey. The internal administration of the circulation department is more important than the placement of classes in so-called logical order with one another. It is well known that investigators of problems in the social sciences use materials in many subject fields. The theory of logical order therefore fails in practice in large libraries which consist of a widely distributed system of stack tiers in the main building and of many departmental, professional-school, seminar, and laboratory collections. Indeed, it may be more profitable to use a shelf list well provided with guide cards than the stacks to learn of the relationships between groups of books as described by a classification.

Other reasons.—Several other reasons, already listed, refer to conditions which were primarily local in nature. In cases in which local expansions proved unsatisfactory, for example, the matter of individual librarians' preferences should not be overlooked. Procedures begun by one librarian are often rejected by his successor.

REASONS RELATED TO USERS

While the inadequacies and inefficiencies of an antiquated classification and inconsistent cataloging should be important factors in any decision to make the large-scale changes involved in reclassification and recataloging projects, it seems that the

ultimate effects of the classification and cataloging upon the users should be the primary foci for consideration. The question, therefore, of whether or not students were active in suggesting reclassification and recataloging merits more than passing attention.

Implications of the effects upon reclassification of open shelves, which in themselves may result from changes in educational methods as well as from expanded privileges given increased numbers of graduate students, should be noted. In every institution in which changes in educational policy occurred, open access to both students and faculty members was permitted. Any value that a classification may have in showing more distinctly than under the previous arrangement currently accepted relationships between branches of knowledge is lost if free access to the shelves is not permitted.

Faculty members.—In twenty-eight institutions, including twenty classified by Dewey, faculty members were active in recommending a change to the L.C. system. This represents 47 per cent of the total number of libraries reclassifying. More important than this, however, is the fact that there is a close relation between faculty interest in classification and specific criticisms of the systems that were discarded. There is no evidence regarding the quantity of criticisms or the proportion of the critics to the total number of faculty members.

Graduate students.—The data show that in six libraries graduate students were active in suggesting change of classification. Further inquiry revealed that this activity in the libraries classified by the Dewey system consisted primarily of complaints arising from the structure of the classification—e.g., the separation of an author's works by form. In libraries not using the Dewey system, criticisms of the whole classifications were made. As in the case of the faculty, there are no data regarding quantity of criticisms or the proportion of student critics to the total number of users.

Uniformity for scholarship.—A reason for reclassification that is sometimes given is the desire to establish uniformity in the arrangement of books in all academic libraries. This envisages

an ideal situation which has not played a significant role in the motives for reclassification. Theoretically, uniformity in classification would enable transfer students, graduate students, faculty members, and other scholars to use many libraries more effectively than they do at the present time. Actually, the Dewey classification comes nearer to being a national classification than does the L.C. system.

REASONS RELATED TO LIBRARY ADMINISTRATION

Considerably more expression is found in the group of reasons relating to library administration. This group of reasons, supplied by thirty-five libraries, refers to the organization, economy, and efficiency of the technical processes for the future, and special factors of administration currently present. These reasons are as follows:

1. Opportunity to correct errors of cataloging and classification (need for recataloging)
2. L.C. classification more effective
3. Adopted use of L.C. cards
4. Adopted use of L.C. subject headings and cataloging procedures
5. Cheaper to use L.C. classification
6. Co-operation with other libraries
7. Consolidation with larger collections
8. Opportunity to use centralized classification and cataloging for several units of a library
9. Staff difficulty in interpolation: high costs of technical processes
10. Circulation department costs for locating and shelving books too high

Opportunity to correct errors of cataloging and classification.—Thirty-one libraries listed recataloging as a major motive for reclassification. There have been some cases in which recataloging has been used as a pretext for reclassification, rather than as a reason. Even though a collection is badly cataloged, there should be some question of the need for reclassification if the system in use is consistent and serves the purpose of the library. On the other hand, if the catalog is in bad condition, contains numerous errors of fact and form, and is generally misleading, recataloging is probably necessary for effective service. If the library has plans for the future which include considerable growth of the collections, the librarian should regard re-

cataloging as an opportunity for a complete reclassification as well. Although more than thirty-one libraries required some recataloging during reclassification, it was not always a primary reason.

L.C. classification more effective.—It has been stated that, in comparison with other systems, the L.C. classification groups materials in a manner which is more satisfactory to the users having access to the stacks, thus minimizing staff attention. Moreover, the circulation department has to expend less effort in locating and shelving books. Finally, the classifiers have little difficulty in interpolating large numbers of titles in the various classes. Although more than one-half of the librarians indicated that the L.C. system is more effective than the system displaced, the evaluations are subjective, rather than based on efficiency in use, speed in service, or economy in the technical processes. There is some reason to believe, in the absence of objective data, that the judgments of librarians are more nearly right than wrong.

Adopted use of L.C. printed cards, subject headings, and cataloging procedures.—The adoption of the use of both L.C. printed cards and subject headings should be regarded as secondary reasons for introducing reclassification. The presence of L.C. classification numbers on the printed cards has undoubtedly been an important factor in influencing librarians to consider the benefits of centralized classification.

No library would need to concern itself with a reclassification program merely because an inconsistent or poorly developed list of subject headings had been used. Yet recataloging involves the changing of subject entries. Among the libraries studied there is considerable evidence that the American Library Association, Sears, and local lists of headings have been unsatisfactory. In these libraries recataloging assumed more importance than reclassification. As one librarian stated: "Our subject headings were so inconsistent that complete recataloging was necessary. It seemed that reclassification by the L.C. system, using the classification, printed cards, subject headings,

and cataloging procedures would clear up difficulties and build an efficient framework for the future."

Cheaper to use the L.C. classification.—Twenty-two librarians indicated that it was cheaper to use the L.C. classification services than to do their own classifying of titles. While it is true that Dewey numbers have been placed on printed cards since 1930, it has been found that a large number of libraries have been unable to use the assignments without considerable modification. In this sense Dewey numbers are only suggestive. For a library which has established a definite plan in regard to the use of the L.C. classification, modification of L.C. assignments of class numbers should be rare.

No special study has been made of the difference in costs of classifying by the Dewey and by the L.C. classification. On the basis of speculation alone, it would seem that the use of centralized classification as furnished by the Library of Congress would be cheaper than each library's assigning its own locations.

Other reasons relating to library administration.—Such reasons as co-operation with affiliated or independent libraries, consolidation with larger libraries, and centralization of the technical processes of the units of a library are important and generally credible motives for reclassification. However, because of the complex managerial and administrative problems in reclassification and recataloging,[9] it appears that the librarian should gather objective data regarding services and costs before introducing technical reorganization based on these reasons.

SUMMARY OF REASONS

Up to this point, three categories of reasons for reclassification and recataloging have been discussed. These reasons relate to (1) the classifications discarded and the nature of existing catalogs, (2) the users, and (3) library administration. The study indicates that certain of the commonly accepted reasons

[9] For a further discussion of these problems, see Maurice F. Tauber, "Reclassification and recataloging of materials in college and university libraries," in W. M. Randall (ed.), *The acquisition and cataloging of books* (Chicago: University of Chicago Press, 1940), pp. 202–11.

for reclassification and recataloging are not particularly valid for the purpose of instituting the processes in college and university libraries. To support this contention one need only cite the common failure on the part of librarians to consider the uses made of classifications and catalogs prior to technical reorganization. This does not mean that in no case were the reasons for reorganization of sufficient importance to warrant undertaking the project.

Although institutional differences make it hazardous to state which particular reasons or combinations of them are of sufficient importance for reclassification, the evidence indicates that some of the reasons concerned with the discarded classifications should be subject to the skepticism of critical students. Quantitatively, the principal reasons relating to the discarded classifications refer to the lack of both completeness and inclusiveness, the illogical order of the classes, and limitations in the content and terminology of the systems from the standpoint of modernity. In libraries arranged by local classifications, lack of classes and broadness of classes were the predominant reasons. Despite the efforts of the editors of the Dewey system to keep it modern, large libraries have found it basically inferior to the L.C. classification.

It is in the set of reasons which relate to library administration that one senses that librarians are certain of their ground. Yet even in this respect the lack of objective study on the part of librarians has produced conditions which do not reflect results in efficiency or economy.

Since no objective study was made of the effectiveness of the discarded classifications, any statement regarding satisfactory arrangement as a reason for change must be based upon the subjective observations of librarians. There is some basis for noting, however, that in most libraries reclassification grouped the materials in a manner that was more satisfactory than that which formerly prevailed. Evidence secured from a faculty survey, discussed in the following paragraphs, supports this statement.

II. FACULTY ATTITUDES CONCERNING CLASSIFICATION

With all due regard to the fact that the classification per se and library administration are important and are assumed to have direct effects upon the convenience in use of books, the actual use of books through classification and the catalog should be the predominant factor in motivating technical reorganization. This may be stated in the form of a question: Does technical reorganization result in greater facility in use of materials by faculty members, students, and library staff members?

To get beyond the casual observations of librarians, an investigation was made to test one of the important reasons for reclassification, namely, that faculty members were interested in having the book collections arranged by a system that was more convenient to scholars than the one in use. To evaluate the results of technical reorganization, a study (based on data secured through a questionnaire and consultations) was made of the attitudes of 594 faculty members in two universities, hereafter referred to as Institution A and Institution B. The 266 faculty members responding represented 45 per cent of the total faculties of the two institutions, the percentage being approximately the same for faculty members in each of the main subject divisions—social sciences, sciences, and humanities and fine arts.

Nine questions which were asked of the faculty members were intended to elicit information on the following points: (1) the extent to which faculty members used the stacks (with the implication that the values of classification are utilized), (2) the extent to which faculty members secured for themselves the books they needed from the library stacks, (3) the frequency of use of the card catalog for locating materials, (4) the attitudes of members of the faculty toward the L.C. classification as a satisfactory arrangement of the materials in their special subject fields and (5) in other fields, (6) the extent of acquaintance of faculty members with classifications other than that of the Library of Congress, (7) the observations of faculty members on problems raised by reclassification, (8) the attitudes of fac-

ulty members toward partial reclassification, and (9) the suitability of using other systems of classification to arrange materials in special subject fields. A tenth question asked for reasons for the approval or disapproval of the L.C. system.

In an earlier paper, attention was called to this method of evaluating the effectiveness of a classification.[10] Objections to the use of such a method are concerned (1) with the lack of qualifications of faculty members to estimate the qualities of a classification and (2) with the failure on the part of faculty members to recognize that systematic classification arranges books effectively.

The responses of the sampling of 266 faculty members representing 48 different academic fields give some basis for tentative conclusions regarding classifications and catalogs and faculty uses of them. The responses of the 178 faculty members in Institution A and 88 in Institution B indicated that in the two universities the approach of the instructional staffs toward classifications and catalogs followed similar patterns. At least four general facts are striking enough to note: (1) Faculty members as a group are not particularly concerned with classification, which is considered to be primarily a locating device. (2) Faculty members as a group are no longer strongly interested in classification, because they consider librarians technically qualified to handle such matters. (3) Faculty members who have access to the shelves and who take advantage of this access generally locate the section in which they are particularly interested and pay little attention to other sections. Scientists who have access to departmental libraries seldom use general libraries, but do use departmental libraries of a related nature. (4) There is little expression of the once prevalent idea that classification in academic libraries should be built around courses of instruction or departments of teaching.

The findings in respect to the specific nine questions which were asked of the faculty members may be summarized as follows:

[10] *Ibid.*, pp. 214–18.

1. In the amount of use of the stacks, one significant element to note is the closeness of the percentages in the various frequencies of use by the faculty members of the two institutions. In Institution A, 68 per cent of the faculty responding used the stacks "weekly or oftener"; in Institution B, 61 per cent. The stacks are used more intensively by 20 to 30 per cent of the faculty than they are extensively by the whole faculty. Approximately 40 per cent of the total faculties in the two universities use the stacks at some time during the year.

2. The majority of the faculty members who use the stacks generally secure from the shelves the books they need, rather than have loan assistants search for them (66 per cent in Institution A and 63 per cent in Institution B).

3. Approximately three-fourths of the total number of faculty members responding use the card catalogs in either the departmental or the general library. The use in departmental libraries is primarily by individuals who are from other departments or who are new to the staff, or by those who are seeking the locations of new titles. The general card catalog is used mostly by individuals who are searching for entries of new acquisitions or for titles outside their departmental interests. Forty-one per cent always consulted the card catalog when looking for specific materials. Two per cent never consulted it, depending upon the classification to locate materials. These figures are open to some question, however, because of the large percentage (20 per cent) who did not give information on this point.

4. Unfavorable opinion in regard to the L.C. classification as a system for arranging materials ranged from 11 per cent in Institution A to 24 per cent in B. There is evidence in the answers from individuals in B that during reclassification there is likely to be more antagonism than after the project is completed. The opinions strongly suggest that the Library of Congress classification is suitable for most of the subject fields contained in academic book collections.

5. The application of the Library of Congress classification to subject fields outside individuals' subject interests has been satisfactory to most of the faculty members who expressed their opinions. The major complaints regarding other fields of interest came from faculty members in the social sciences and the humanities.

6. Except for the Dewey classification, which is known to practically everyone who has used libraries, faculty knowledge of classifications other than that of the Library of Congress scatters widely among twenty-one systems. This fact suggests that the librarian seek one system and apply it consistently.

7. The effects of reclassification perhaps may best be observed after the project has been completed. Similarly, opinions regarding the value of the project may best be stated after users have had an opportunity to observe the new arrangement and contrast it with the previous situation. The evidence indicates that those individuals who were on the teaching staff before reclassification in Institution A describe the previous condition as chaotic; the evidence from the opinions expressed by faculty members in Institution B does not give as clear-cut a picture.

8. The weight of faculty opinion is against partial reclassification. The

question of partial reclassification, however, is more important than it seems on the surface. There has not been sufficient consideration of the possibility of segregating materials on the basis of use.

9. The responses to the problematical point of rearranging library materials by another system if the opportunity were granted revealed that only in those cases in which individuals were dissatisfied with the L.C. system were there expressions of affirmative approval of a further reclassification. In effect, the great majority of faculty members were against such action.

Three conclusions may be drawn from the data gathered in the survey of faculty attitudes:

1. As a group, faculty members are almost surprisingly indifferent about classification. There are numerous exceptions to this generalization, but the fact remains that they are definitely *exceptions*. This basic fact should give pause to the librarian who believes that reclassification is going to effect great reforms or changes. Doubtless faculty members are assisted by a good classification system, but the assistance seems to be unrecognized or received subconsciously in a very considerable degree.

2. The Library of Congress classification withstands the assault of faculty critics very well. Criticism is diffused for the most part; only in a few weak spots, such as in the cases of psychology, geography, and theology, does there appear to be a weakness of the system.

3. As a corollary to both the preceding points, it seems fair to suggest that, in general, juggling with the L.C. system will not produce useful results. In most cases, libraries will probably be well advised to follow L.C. classification pretty literally. Changes are expensive and there is little evidence to show that they result in significant improvements over Library of Congress practice.

III. CONCLUSION

To show the theoretical and logical superiority of one classification system over another is relatively easy. Similarly, it is obvious that a library completely and accurately classified and cataloged is more satisfactory to the average user than its opposite. If these two considerations were the only ones, then the question of whether to reclassify and recatalog might readily be

answered in the affirmative. There are, however, two other considerations which are no less important; and perhaps from an administrative standpoint they may be even more so.

One of these is the cost involved in extensive reclassification and recataloging and the other is the actual difference they make to the users. Certainly we know that the cost is great. Therefore, before over-all changes are undertaken specific consideration should be given to the potential users of the classification and the catalog. Here is where the survey of the faculty and of other users becomes important. Does the inferiority of the classification system or the catalog hamper the faculty members, students, and library staff in their use of materials—or, rather, does it hamper them so greatly that reclassification and recataloging are actually the best ways out?

The burden of proof rests upon the librarian to show that the outmoded classification and the antiquated catalog interfere with the use of library materials or increase the cost of preparing them for use. It is not possible to answer definitively the question of whether a particular library should reclassify or recatalog. If its present status is such as to interfere greatly with the proper functioning of the library in its service to scholarship, then a change is indicated; otherwise, changes should be made with considerable caution. Only as greatly improved service can be seen to result from reorganization may the tremendous costs involved be justified.